

Office Action Summary

Application No.

09/525,247

Applicant(s)

Uriu et al.

Examiner

Tuyen T. Nguyen

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 16, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-15 and 21-38 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-15 and 21-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 21-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 21, 25, 29, 34, applicant should clarify what is intended by "so as to have no specific gap." The phrase "so as to have no specific gap" is a negative limitation. Applicant should claim what the structure does and not what it does not.

Regarding claims 40, 42, 44, 46, 48 and 50, applicant should clarify what is intended by "no specific gap." The specific gap structure is unclear.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 8-15, 21-28 and 39-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zsamboky et al. [US 5,716,713] in view of Oba et al. [JP 58-98906]

Zsamboky et al. discloses a ceramic stacked planar transformer structure comprising:

- at least one ceramic layer [160]; and
- at least one fine, continuous copper pattern [134] formed on the layer by an electroforming process.

Zsamboky et al. discloses the instant claimed invention except for the specific thickness to width ratio of the conductive pattern.

Oba et al. discloses a coil pattern [3] formed on a peripheral surface of a magnetic material [1] through an insulating layer [2] by an electroforming process, wherein the coil pattern having a width to thickness ratio within the claimed ratio.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to use the conductive pattern of Oba et al. in Zsamboky et al. for the purpose of reducing size of the device.

The specific shape of the conductive patterns would have been an obvious design consideration depending upon the specific application of the inductive components.

5. Claims 29-38 and 47-50, as best understood in view of the rejection under 112 second paragraph, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokochi et al. [JP 6-20839] in view of Oba et al. [JP 58-98906].

Yokochi et al. discloses a ceramic chip inductor [figure 1] comprising:

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- at least one ceramic layer [1a, 1b, 1c]; and
- at least one fine, continuous conductive pattern [3a, 3b] formed on the ceramic layer.

Yokochi et al. discloses the instant claimed invention except for the specific thickness to width ratio of the conductive pattern, the specific method of forming the conductive pattern and the specific material used for the conductive pattern.

Oba et al. discloses a coil pattern [3] formed on a peripheral surface of a magnetic material [1] through an insulating layer [2] by an electroforming process, wherein the coil pattern having a width to thickness ratio within the claimed ratio.

It would have been obvious to one having ordinary skilled in the art at the time the invention was made to use the conductive pattern of Oba et al. in Zsamboky et al. for the purpose of reducing the size of the device.

The specific shape of and material used for the conductive patterns would have been an obvious design consideration depending upon the specific application of the inductive components.

Response to Arguments

6. Applicant's arguments filed 12/16/02 have been fully considered but they are not persuasive.

Applicant argues that:

[1] "no specific gap" means that the conductive pattern and the insulation layer are substantially in contact;

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[2] There is no motivation shown by Oba et al. to increase the thickness of the conductive pattern and reduce the width thereof; and

[3] There is no motivation to use the electroforming process of Oba et al. on a ceramic layer. The examiner disagrees.

Regarding [1], applicant has not claimed, nor has examiner considered, the conductive patterns and insulating layers being *substantially in contact*. "No specific gap" does not define any specific structural limitations.

Regarding [2], Oba et al. teaches that by using the coil pattern shown the device can be made more compact.

Regarding [3], Oba et al. teaches that the conductive pattern is applied to an insulative layer.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Tuyen T. Nguyen whose telephone number is (703) 308-0821.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Elvin Enad, can be reached at (703) 308-7619. The fax number for this Group is (703)305-7724.

Any inquiry of a general nature or relating to status of this application of proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

TTN *TTN*
March 9, 2003

Tuyen T. Nguyen